

WHAT IS CLAIMED IS:

1. A packet communication system comprising:

a plurality of terminals, and

transferring means for transferring multicast packets written with the same information to said plurality of terminals;

5 wherein said transferring means comprises:

a broadcast group managing router provided with: holding means for holding calculation type addresses having bits "1" corresponding to those of said plurality of terminals to which a multicast packet is to be transferred, respectively; and assigning/sending means for assigning a pertinent calculation

10 type address to a multicast packet and sends out the multicast packet; and

at least one calculation type address calculating router provided with: holding means for holding directional route masks having bits "1" corresponding to those directional routes into which a multicast packet is to be transferred, respectively; and sending means for sending out a multicast packet
15 to those directional routes which are given with logical products of "1" by the combination of each directional route mask and said assigned calculation type address; and

wherein each of said plurality of terminals comprises:

holding means for holding a terminal mask having a bit "1"
20 corresponding to the terminal itself; and

multicast packet receiving means for receiving a multicast packet which is given with a logical product of "1" by the combination of said terminal mask and said assigned calculation type address.

2. A mobile communication system comprising:

a mobile terminal;

a plurality of broadcast receiving routers communicated to said mobile terminal via radio link;

5 encapsulating means for encapsulating a uni-cast packet destined to said mobile terminal into a multicast packet destined to said plurality of broadcast receiving routers; and

transferring means for transferring the multicast packet;

wherein said transferring means comprises:

10 a mobile terminal position managing router provided with: holding means for holding calculation type addresses having bits "1" corresponding to those of said plurality of broadcast receiving routers to which a multicast packet is to be transferred, respectively; and assigning/sending means for assigning a pertinent calculation type address to a multicast packet and sends
15 out the multicast packet; and

at least one calculation type address calculating router provided with: holding means for holding directional route masks having bits "1" corresponding to those directional routes into which a multicast packet is to be transferred, respectively; and sending means for sending out a multicast packet
20 to those directional routes which are given with logical products of "1" by the combination of each directional route mask and said assigned calculation type address; and

wherein each of said plurality of broadcast receiving routers comprises:
holding means for holding a terminal mask having a bit "1"
25 corresponding to the terminal itself;

multicast packet receiving means for receiving a multicast packet which is given with a logical product of "1" by the combination of said terminal mask and said assigned calculation type address; and

de-capsulating means for de-capsulating the received multicast packet
30 into a uni-cast packet destined to said mobile terminal.

3. An addressing method for communication, comprising:

at least one calculation type address having bits "1" corresponding to destinations to which a multicast packet is to be transferred;

5 at least one directional route mask having bits "1" corresponding to those directional routes into which a multicast packet is to be transferred; and

at least one terminal mask having a bit "1" corresponding to that destination which is to receive the multicast packet.